



[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2011-1158; Directorate Identifier 2010-SW-018-AD]

RIN 2120-AA64

Airworthiness Directives; Eurocopter France Helicopters

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: We propose to revise airworthiness directive (AD) 2011-22-05 for Eurocopter France (Eurocopter) Model AS350B, B1, B2, B3, BA, C, D, D1, AS355E, F, F1, F2, N, and NP helicopters with certain tail rotor pitch control rods installed. AD 2011-22-05 currently requires, before the first flight of each day, checking the tail rotor (T/R) pitch control rod (control rod) outboard spherical bearing (bearing) for play. If play exists, AD 2011-22-05 requires measuring the bearing's radial and axial play. Since we issued AD 2011-22-05, we have determined that we can safely extend the compliance time to perform the initial and recurring checks for bearing play. The proposed actions are intended to prevent failure of a control rod, loss of T/R control, and subsequent loss of control of the helicopter.

DATES: We must receive comments on this proposed AD by [INSERT DATE 60 days AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: You may send comments by any of the following methods:

- **Federal eRulemaking Docket:** Go to <http://www.regulations.gov>. Follow the online instructions for sending your comments electronically.

- Fax: 202-493-2251.
- Mail: Send comments to the U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, DC 20590-0001.
- Hand Delivery: Deliver to the “Mail” address between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

Examining the AD Docket

You may examine the AD docket on the Internet at <http://www.regulations.gov> or in person at the Docket Operations Office between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this proposed AD, the foreign authority’s AD, the economic evaluation, any comments received and other information. The street address for the Docket Operations Office (telephone 800-647-5527) is in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

For service information identified in this proposed AD, contact American Eurocopter Corporation, 2701 N. Forum Drive, Grand Prairie, TX 75052; telephone (972) 641-0000 or (800) 232-0323; fax (972) 641-3775; or at <http://www.eurocopter.com/techpub>. You may review service information at the FAA, Office of the Regional Counsel, Southwest Region, 2601 Meacham Blvd., Room 663, Fort Worth, Texas 76137.

FOR FURTHER INFORMATION CONTACT: Robert Grant, Aviation Safety Engineer, Safety Management Group, FAA, 2601 Meacham Blvd., Fort Worth, Texas 76137; telephone (817) 222-5110; email robert.grant@faa.gov.

SUPPLEMENTARY INFORMATION:

Comments Invited

We invite you to participate in this rulemaking by submitting written comments, data, or views. We also invite comments relating to the economic, environmental, energy, or federalism impacts that might result from adopting the proposals in this document. The most helpful comments reference a specific portion of the proposal, explain the reason for any recommended change, and include supporting data. To ensure the docket does not contain duplicate comments, commenters should send only one copy of written comments, or if comments are filed electronically, commenters should submit only one time.

We will file in the docket all comments that we receive, as well as a report summarizing each substantive public contact with FAA personnel concerning this proposed rulemaking. Before acting on this proposal, we will consider all comments we receive on or before the closing date for comments. We will consider comments filed after the comment period has closed if it is possible to do so without incurring expense or delay. We may change this proposal in light of the comments we receive.

Discussion

On October 12, 2011, we issued AD 2011-22-05, Amendment 39-16847 (76 FR 70046, November 10, 2011) for Eurocopter Model AS350B, B1, B2, B3, BA, C, D, D1, AS355E, F, F1, F2, N, and NP helicopters with certain T/R control rods installed. AD 2011-22-05 requires the following actions:

- Before the first flight of each day, checking the control rod bearing for play on the helicopter, by observation and feel, by slightly moving the TR blade in the flapping axis while monitoring the bearing for movement.

- If the Teflon cloth is coming out of its position within the bearing or if there is discoloration or scoring, replacing the control rod assembly before further flight.
- If play is detected, having a mechanic remove the control rod from the helicopter, and using a dial indicator, measuring the control rod bearing wear. If the radial play exceeds 0.008 inch or axial play exceeds 0.016 inch, replacing the control rod with an airworthy control rod before further flight.
- Thereafter, at intervals not to exceed 30 hours time-in-service (TIS), repeating the requirement to remove the control rod and measuring the bearing for wear using a dial indicator.

AD 2011-22-05 was prompted by the issuance of AD No. 2010-0006, dated January 7, 2010, by the European Aviation Safety Agency (EASA), which is the Technical Agent for the Member States of the European Union. The EASA AD was issued to correct an unsafe condition for certain Eurocopter helicopters. EASA advised that a pilot of a Eurocopter Model AS350 helicopter felt slight vibrations in the pedal unit in flight. A few minutes later, the vibration level increased and the pilot carried out a precautionary autorotation landing. After landing, it was discovered that one TR pitch-change link was damaged, the tailboom cone was missing, and there was an impact mark on the tailboom. Further investigation revealed the affected TR pitch-change link showed extensive wear on the ball-joint. EASA advised that this condition, if not detected and corrected, could lead to loss of the anti-torque function and possible loss of control of the helicopter.

Actions Since AD 2011-22-05 Was Issued

Since we issued AD 2011-22-05 (76 FR 70046, November 10, 2011), we have determined that we can safely extend the compliance time for the initial bearing play check and the interval for recurring checks to 30 hours TIS. We also received several requests for

alternative methods of compliance regarding the bearing play check, and as a result this proposed AD would clarify the requirements of that check. We removed a previous requirement that if the Teflon cloth is coming out of its normal position within the bearing, or if there is discoloration or scoring on the bearing, that the control rod be replaced with an airworthy rod before further flight.

FAA's Determination

These helicopters have been approved by the aviation authority of France and are approved for operation in the United States. Pursuant to our bilateral agreement with France, EASA, its technical representative, has notified us of the unsafe condition described in its AD. We are proposing this AD because we evaluated all known relevant information and determined that an unsafe condition is likely to exist or develop on other products of the same type design.

Related Service Information

Eurocopter has issued Alert Service Bulletin (ASB) No. 05.00.60 for the Model AS350 series helicopters, and ASB No. 05.00.56 for the Model AS355 series helicopters, both dated December 9, 2009. These ASBs specify performing an initial and recurring check for play in the pitch-change links. If axial play in the ball-joint is detectable, the ASBs specify removing the pitch-change link and measuring the bearing wear using a dial indicator. EASA classified these ASBs as mandatory and issued EASA AD No. 2010-0006 to ensure the continued airworthiness of these helicopters.

Proposed AD Requirements

This proposed AD would clarify the requirements of AD 2011-22-05, extend the compliance time for the bearing play checks to 30 hours TIS, and remove the requirement to

replace the control rod if the Teflon cloth is out of position or if there is discoloration or scoring on the bearing.

Costs of Compliance

We estimate that this proposed AD would affect 936 helicopters of U.S. Registry and that labor costs will average \$85 a work-hour. We estimate, per helicopter, it will take minimal work-hours to do the check, 1 work-hour to measure the bearing play, and 1 work-hour to replace 1 control rod. The average labor rate is \$85 per work-hour. Required parts will cost about \$1,724 to replace a control rod per helicopter. Based on these figures, we estimate the cost of this AD on U.S. operators is minimal for the check. Measuring the bearing play, if needed, would cost \$85 per helicopter, and replacing 1 control rod would cost \$1,809 per helicopter.

Authority for This Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. "Subtitle VII: Aviation Programs," describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in "Subtitle VII, Part A, Subpart III, Section 44701: General requirements." Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

We determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would not have a substantial direct effect on the

States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed, I certify this proposed regulation:

1. Is not a “significant regulatory action” under Executive Order 12866;
2. Is not a “significant rule” under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979);
3. Will not affect intrastate aviation in Alaska to the extent that it justifies making a regulatory distinction; and
4. Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

We prepared an economic evaluation of the estimated costs to comply with this proposed AD and placed it in the AD docket.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

The Proposed Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 14 CFR part 39 as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. The FAA amends § 39.13 by removing Airworthiness Directive (AD) 2011-22-05, Amendment 39-16847 (76 FR 70046, November 10, 2011), and adding the following new AD:

EUROCOPTER FRANCE: Docket No. FAA-2011-1158; Directorate Identifier 2010-SW-018-AD.

(a) Applicability

This AD applies to Eurocopter France (Eurocopter) Model AS350B, B1, B2, B3, BA, C, D, D1; and Model AS355E, F, F1, F2, N, and NP helicopters; with tail rotor (T/R) pitch control rod (control rod), part number (P/N) 350A33-2100-00, -01, -02, -03, -04; P/N 350A33-2121-00, -01, -02; P/N 350A33-2143-00; or P/N 350A33-2145-00 or -01, installed; certificated in any category.

(b) Unsafe Condition

This AD defines the unsafe condition as excessive play in the control rod. This condition could result in failure of a T/R control rod, loss of T/R control, and subsequent loss of control of the helicopter.

(c) Affected ADs

This AD revises AD 2011-22-05 (76 FR 70046, November 10, 2011), Amendment 39-16847, Docket No. FAA-2011-1158, Directorate Identifier 2010-SW-018-AD.

(d) Comments Due Date

We must receive comments by [INSERT DATE 60 DAYS AFTER DATE OF PUBLICATION IN THE Federal Register].

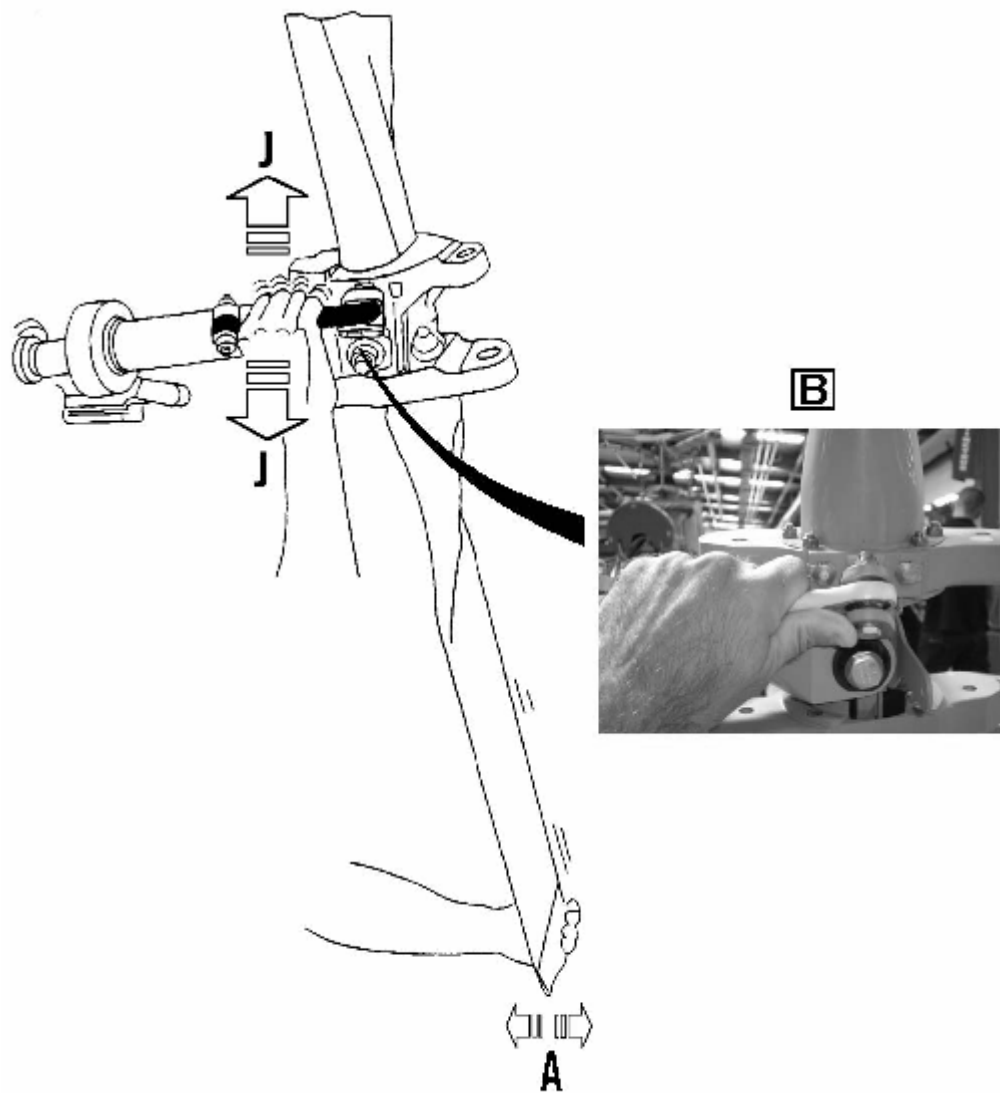
(e) Compliance

You are responsible for performing each action required by this AD within the specified compliance time unless it has already been accomplished prior to that time.

(f) Required Actions

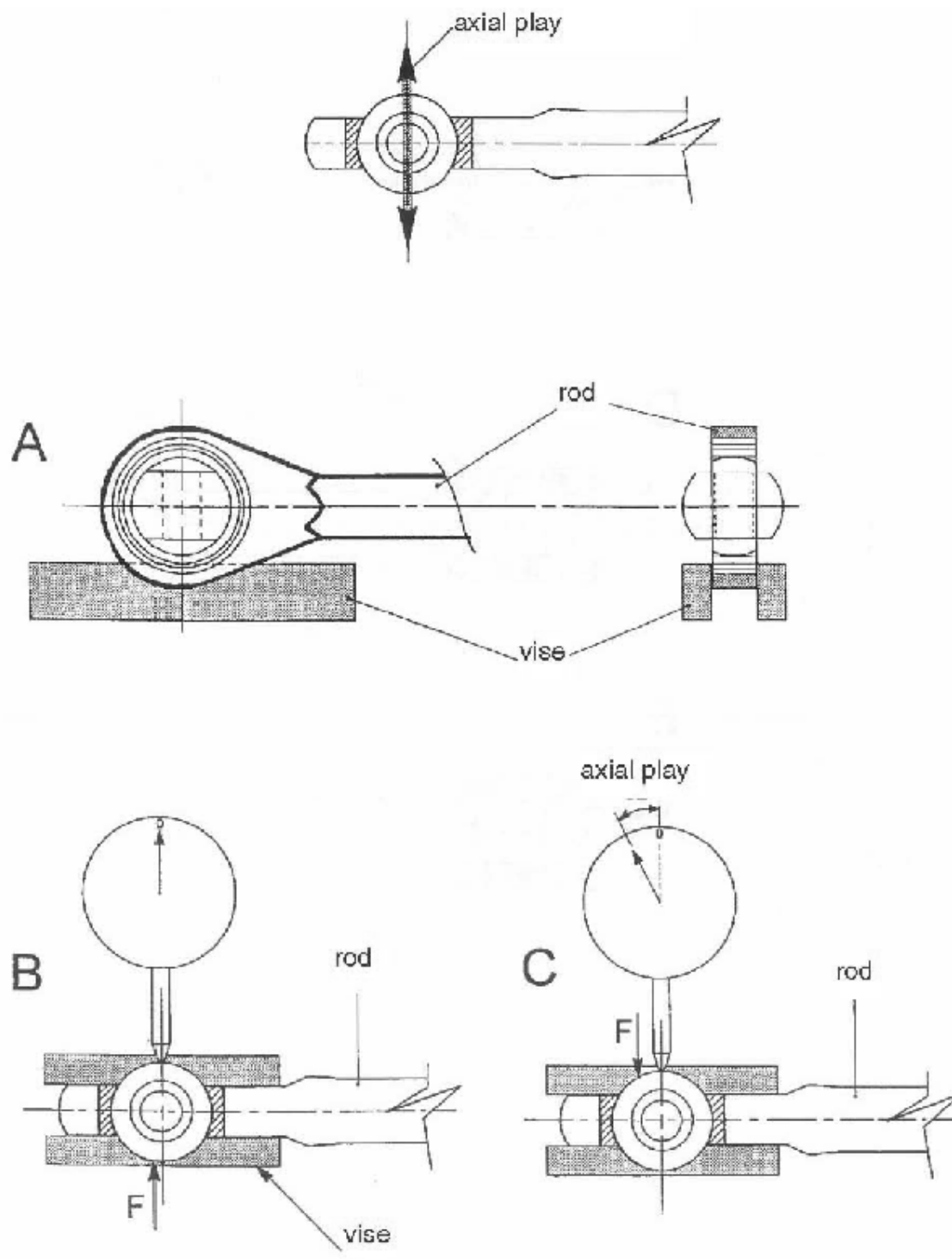
(1) Within 30 hours time-in-service (TIS) and, if no bearing play is detected, thereafter at

intervals not to exceed 30 hours TIS, place the T/R pedals in the neutral position. If the helicopter is fitted with a T/R load compensator, discharge the accumulator as described in the rotorcraft flight manual. Check the control rod bearing (bearing) for play on the helicopter, by observation and feel, by slightly moving the T/R blade in the flapping axis while monitoring the bearing for movement. See the following Figure 1 to Paragraph (f) of this AD. The actions required by this paragraph of may be performed by the owner/operator (pilot) holding at least a private pilot certificate, and must be entered into the helicopter maintenance records showing compliance with this AD in accordance with 14 CFR 43.9(a)(1)-(4) and 14 CFR 91.417(a)(2)(v). The record must be maintained as required by 14 CFR 91.417, 121.380, or 135.439.



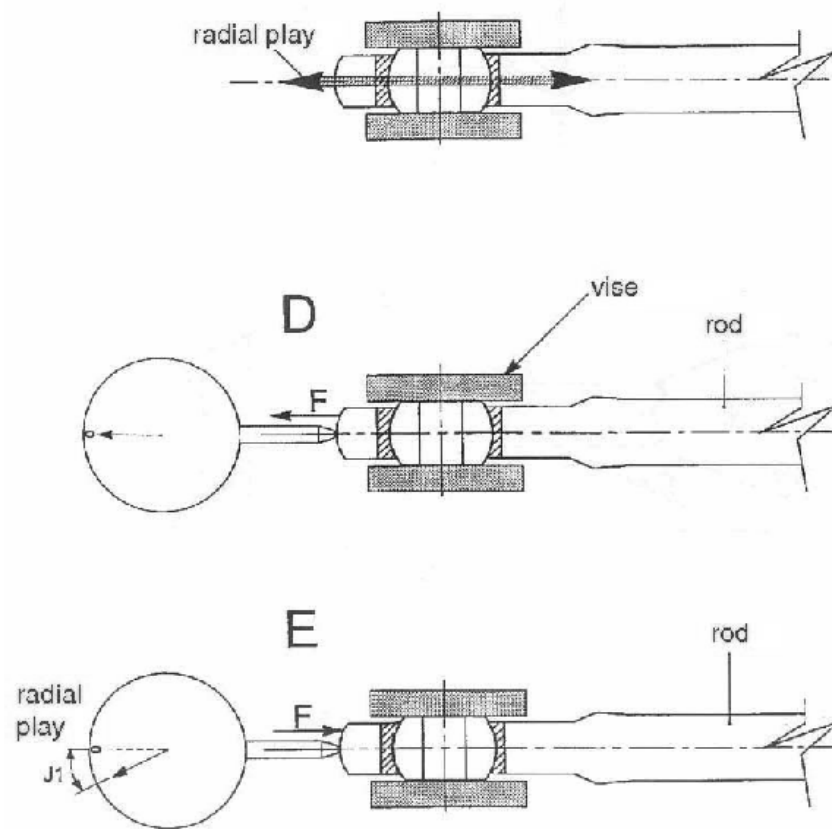
Manual Check for Play of the Tail Rotor Pitch Control Rod
Figure 1 to Paragraph (f)

(2) If a pilot or mechanic detects play in the bearing, before the next flight, a mechanic must remove the control rod from the helicopter, and using a dial indicator, measure the bearing wear according to the following and as shown in Figures 2 and 3 to Paragraph (f) of this AD:



Measurement of the Axial Play (A) of the Bearing

Figure 2 to Paragraph (f)



Measurement of the Radial Play (R) of the Bearing

Figure (3) to Paragraph (f)

- (i) Remove the control rod from the helicopter.
- (ii) Mount the control rod in a vise as shown in Figure 2 to Paragraph (f) of this AD.
- (iii) Using a dial indicator, take axial play readings by moving the spherical bearing in the direction F (up and down) as shown in Figure 2 to Paragraph (f) of this AD.
- (iv) Install a bolt through the bearing and secure it with a washer and nut to provide a clamping surface when the bearing is clamped in a vise.
- (v) Mount the control rod and bearing in a vise as shown in Figure 3 to Paragraph (f) of this AD.
- (vi) Using a dial indicator, take radial play measurements by moving the control rod in the direction F as shown in Figure 3 to Paragraph (f) of this AD.
- (vii) Record the hours of operation on each control rod.
- (viii) If the radial play exceeds 0.008 inch or axial play exceeds 0.016 inch, replace the control rod with an airworthy control rod before further flight.
- (ix) If the radial and axial play are within limits, reinstall the control rod.
- (x) Thereafter, at intervals not to exceed 30 hours TIS, remove the control rod and measure the bearing play with a dial indicator in accordance with paragraph (f)(2) of this AD.

(g) Alternative Methods of Compliance (AMOCs)

(1) The Manager, Safety Management Group, FAA, may approve AMOCs for this AD. Send your proposal to: Robert Grant, Aviation Safety Engineer, Safety Management Group, FAA, 2601 Meacham Blvd., Fort Worth, Texas 76137; telephone (817) 222-5110; email robert.grant@faa.gov.

(2) For operations conducted under a 14 CFR part 119 operating certificate or under 14 CFR part 91, subpart K, we suggest that you notify your principal inspector, or lacking a principal inspector, the manager of the local flight standards district office or certificate holding district office before operating any aircraft complying with this AD through an AMOC.

(3) An AMOC approved previously in accordance with Airworthiness Directive No. 2011-22-05, Amendment 39-16847 (76 FR 70046, November 10, 2011), is approved as an AMOC for the corresponding requirements in paragraph (f)(2) of this AD.

(h) Additional Information

(1) Eurocopter Alert Service Bulletin (ASB) No. 05.00.60 and ASB No. 05.00.56, both dated December 9, 2009, which are not incorporated by reference, contain additional information about the subject of this AD. For service information identified in this AD, contact American Eurocopter Corporation, 2701 N. Forum Drive, Grand Prairie, TX 75052; telephone (972) 641-0000 or (800) 232-0323; fax (972) 641-3775; or at <http://www.eurocopter.com/techpub>. You may review a copy of the service information at the FAA, Office of the Regional Counsel, Southwest Region, 2601 Meacham Blvd., Room 663, Fort Worth, Texas 76137.

(2) The subject of this AD is addressed in the European Aviation Safety Agency (EASA) AD No. 2010-0006, dated January 7, 2010. You may view the EASA AD on the Internet at <http://www.regulations.gov> in Docket No. FAA-2011-1158.

(i) Subject

Joint Aircraft Service Component (JASC) Code: 6720, Tail rotor control system.

Issued in Fort Worth, Texas, on September 17, 2013.

Gwendolynne O'Connell,
Acting Directorate Manager, Rotorcraft Directorate,
Aircraft Certification Service.

[FR Doc. 2013-23434 Filed 09/25/2013 at 8:45 am; Publication Date: 09/26/2013]